

Work Order ID 151532

Tuesday, September 27, 2016 2:28:59 PM

151532

Page 1

Item ID: D4888-041L02

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Dome Light Air Vent Assembly, Black

Start Date: 9/28/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 9/30/2016 Req'd Qty: 1.00

1

Customer:

Reference:

DAS

Approvals:

Process Plan:

21**9-89**Date: **SEP 28 2016**

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4888	A

100

0.00

100

HandThermo

Memo

0.00

Hand Finishing Thermoforming

Pick Kit

/ **OCT 17 2016****DAS**
6
9-89

110

0.00

110

Small Fab

Memo

0.15

Small Fab

Assemble as per Dwg D4888-041

1) Install air vents

2) Install lights

3) Install rheostats

4) Install wiring harness

DAS
07
9-89y / **16/10/17**

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval			
Description Work Order Deviation				Disposition							

Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐				FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____							

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Page 2

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N900040100Setup Start ***NS1***

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Start Date: 9/28/2016 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 9/30/2016 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00				1			DAS 38 9-28 OCT 18 2016
Quality Control									
130	Identify as per dwg & Stock Location: <u>MF004</u>	0.00							
130									
Packaging	Memo	0.00				1			DAS 6 9-28 OCT 20 2016
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.02							16/10/2016
Quality Control									

DAS
21
9-29

OCT 20 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval			
Description Work Order Deviation				Disposition							

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

Picklist Print

Tuesday, September 27, 2016 2:29:03 PM

Page 1

Work Order ID: 151532

151532

Parent Item: D4888-041L02

D4888-041L 02

Parent Item Name: Dome Light Air Vent Assembly, Black

Start Date: 9/28/2016

Required Date: 9/30/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev A New Issue 13/09/13 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4886-1		Manufactured	No			100	Each	9.0000	2	2			
D4886-1									**			OCT 17 2016	
Air Vent													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				MF005				9					
				141981				1					
				147622				8					
D4888-1L02		Manufactured	No			100	Each	0.0000	1	1			
D4888-1L 02									**			OCT 17 2016	
Dome Light Housing, Black													
D4897-041		Manufactured	No			100	Each	7.0000	1	1			
D4897-041									**			OCT 17 2016	
Dome Light Wiring													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				MF007				7					
				142110				3					
				147796				4					
D4898-1		Manufactured	No			100	Each	30.0000	12	12			
D4898-1									**			OCT 17 2016	
Screw, Stainless Steel													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				MF006				30					
				141124				30					

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

Tuesday, September 27, 2016 2:29:03 PM

Page 2

Work Order ID: 151532

151532

Parent Item: D4888-041L02

D4888-041L02

Parent Item Name: Dome Light Air Vent Assembly, Black

Start Date: 9/28/2016

Required Date: 9/30/2016

Start Qty: 1.00

Required Qty: 1.00

D4906-1 Manufactured No

100 Each 2.0000 1 1

D4906-1

Knob

**

OCT 17 2016

DAS
6
9-89

Location

Loc Qty

Loc Code

MF006

2

128364

2

MS21042L06

Purchased No

100 Each 178.0000 12 12

MS21042L06

Nut

**

OCT 17 2016

DAS
6
9-89

Location

Loc Qty

Loc Code

over003

100

m135766

100

ST303

78

m135046

28

m135274

50

NAS1149F0663P

Purchased No

100 Each 117.0000 3 3

NAS1149F0663P

WASHER

**

OCT 17 2016

DAS
6
9-89

Location

Loc Qty

Loc Code

ST262

117

M134365

117

NAS1149FN632P

Purchased No

100 Each 43.0000 12 12

NAS1149FN632P

Washer

**

OCT 17 2016

DAS
6
9-89

Location

Loc Qty

Loc Code

ST263

43

m129163

43

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

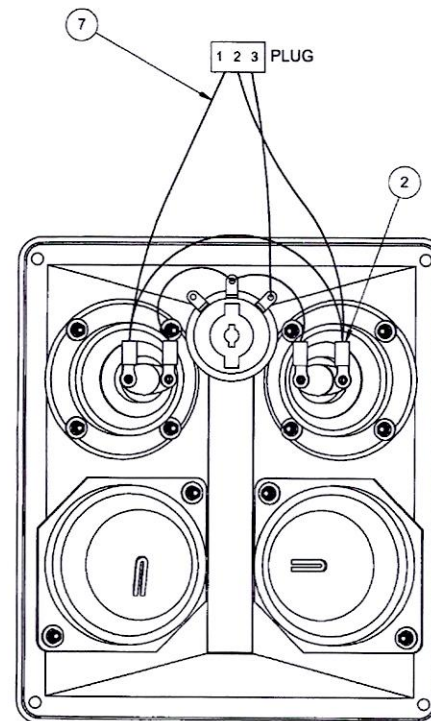
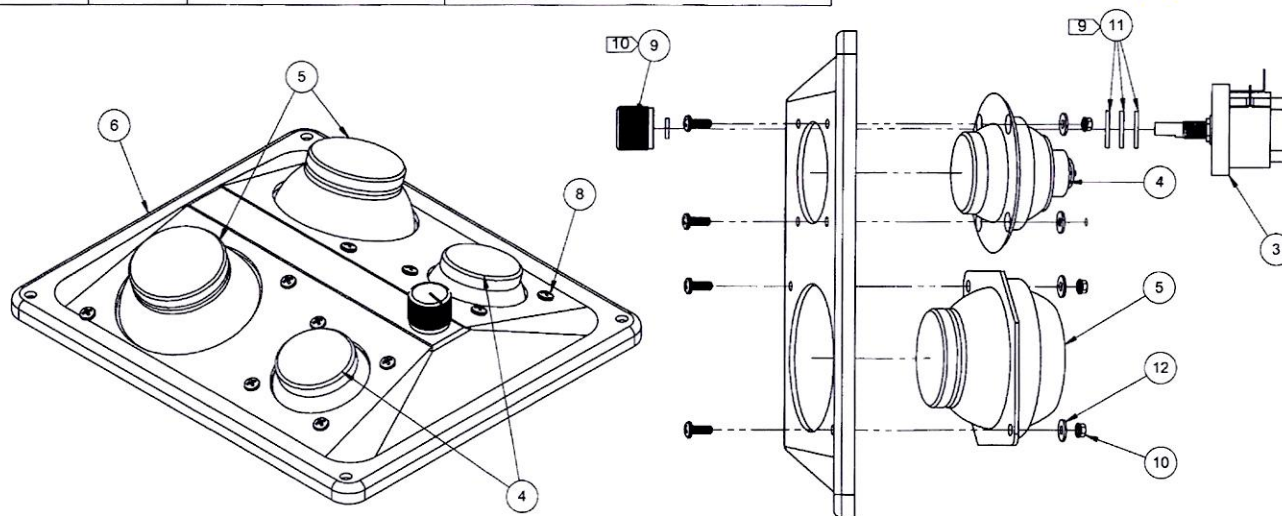
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

ITEM NO.	QTY. -041	PART NUMBER	DESCRIPTION
1	X	D4888-041	DOME LIGHT AIR VENT ASSEMBLY
2	4	D4290-21 (REF)	RING TERMINAL (PART OF D4897-041)
3	1	D4864-1 (REF)	RHEOSTAT (PART OF D4897-041)
4	2	D4872-1 (REF)	LIGHT FIXTURE (PART OF D4897-041)
5	2	D4886-1	AIR VENT
6	1	D4888-1	DOME LIGHT HOUSING
7	1	D4897-041	DOME LIGHT WIRING HARNESS
8	12	D4898-1	SCREW
9	1	D4906-1	KNOB
10	12	MS21042L06	NUT
11	3	NAS1149F0663P	WASHER
12	12	NAS1149FN632P	WASHER

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 151532 M5
16-09-28



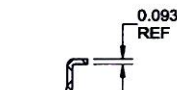
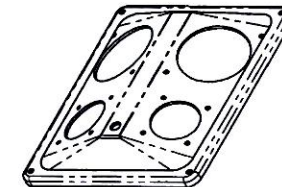
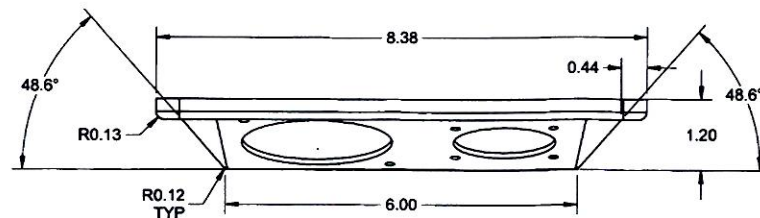
RELEASED
2013-09-16
nd

D4888-041 DOME LIGHT AIR VENT ASSEMBLY

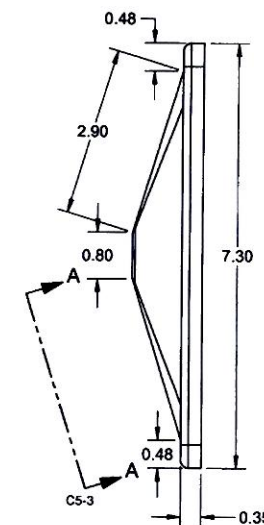
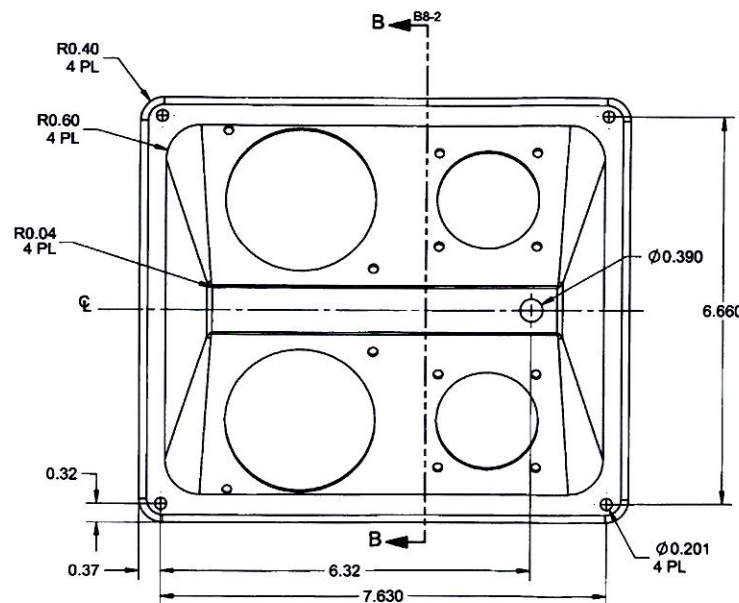
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 1.43 lbs
- 8) REPLACES GENEVA P/N GA129-12 P112-L
- 9) OPTIONAL: USE ADDITIONAL WASHERS TO SHIM AS REQUIRED
- 10) NUT INCLUDED WITH RHEOSTAT

A	NEW ISSUE	DESCRIPTION	BY	DATE
REV.				
DESIGN		DART AEROSPACE USA, INC.		
DRAWN		KENT, WA		
CHECKED		DRAWING NO.	REV. A	
MFG. APPR.		D4888	SHEET 1 OF 3	
APPROVED		TITLE	SCALE	
DE APPR.		DOME LIGHT AIR VENT ASSY	NTS	
DATE	13.07.11	COPYRIGHT © 2013 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE, OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.		



SECTION B-B
B5-2



NOTES:

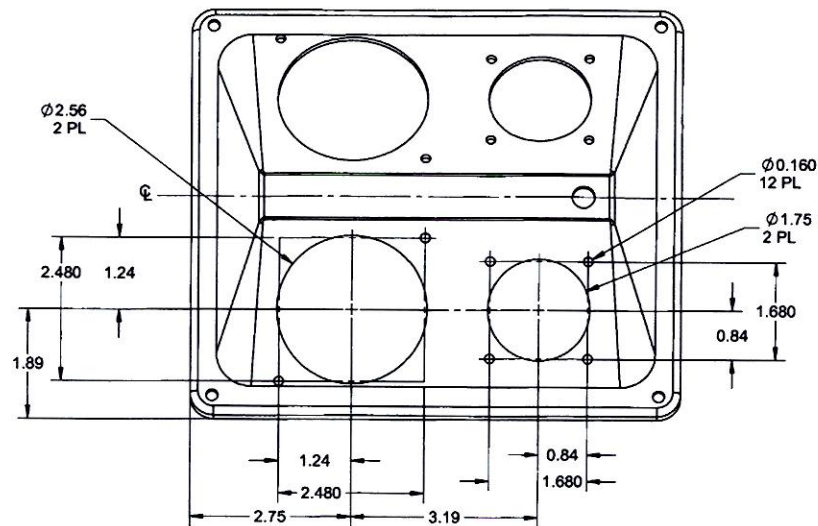
- 1) MATERIAL: SEE TABLE
- 2) TOOLING: THERMOFORM PER MOLD DT9932 PER QSI 022 TRIM PER DT9932
- 3) FINISH: N/A
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: N/A
- 8) WEIGHT: 0.22 lbs
- 9) REPLACES GENEVA P/N GA129-7
- 10) PART SHAPE AND GEOMETRY IS CONTROLLED BY TOOLING
- 11) MINIMUM THICKNESS AFTER FORMING IS 0.060" FOR FLANGES AND 0.070" ELSEWHERE

D4888-1 DOME LIGHT HOUSING

PART NUMBER	DESCRIPTION
D4888-1LBL	F6006 SUEDE/POLISHED 701 BLACK LEXAN SHEET 0.093 THICK (REF DART SPEC MLEXS.093-F6006-02)
D4888-1LLG	F6006 SUEDE/POLISHED GY5B133 LIGHT GREY LEXAN SHEET 0.093 THICK (REF DART SPEC MLEXS.093-F6006-07)

DESIGN		DART AEROSPACE USA, INC. KENT, WA DRAWING NO. D4888 TITLE DOME LIGHT AIR VENT ASSY SCALE NTS COPYRIGHT © 2013 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.
DRAWN		
CHECKED		
MFG. APPR.		
APPROVED		
DE APPR.		
DATE	13.07.11	

RELEASED
2013-09-16



VIEW A-A
B2-2

RELEASED
2013-09-16
MD

DESIGN	<i>OS</i>	DART AEROSPACE USA, INC.	
DRAWN	<i>OS</i>	KENT, WA	
CHECKED	<i>PC</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>W</i>	D4888	SHEET 3 OF 3
APPROVED	<i>W</i>	TITLE	SCALE
DE APPR.	<i>W</i>	DOME LIGHT AIR VENT ASSY	
DATE	13.07.11	NTS	
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